ABSTRACT OF THE DISCLOSURE

Methods and devices for the measurement of clinically relevant analytes in fluids are provided. The devices and methods are particularly relevant for detection of glucose in blood and allow internal calibration of measurements. One device includes a flow path for conducting the fluid through the device; a predetermined amount of the analyte arranged on the flow path such that the analyte mixes with fluid that passes it to form a calibration sample of the fluid and detector means arranged on the flow path for detecting respective analyte levels in an unadulterated sample of the fluid and in the calibration sample. Another device provides a predetermined amount of a calibration analyte of a different species to the clinically relevant analyte arranged on the flow path, and first and second detector means for detecting the levels of the clinically relevant analyte and the calibration analyte. One method includes the steps of mixing a sample of the fluid with a known amount of the analyte to form a calibration sample, measuring the analyte levels in both the calibration sample and the unadulterated sample and adjusting the level measured in the unadulterated sample using the level measured in the calibration sample. Another method mixes a known amount of a calibration analyte of a different species to the clinically relevant analyte with the fluid; measures the levels of the clinically relevant analyte and the calibration analyte and adjusts the measured level of the clinically relevant analyte accordingly.

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